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ABSTRACT

This paper discusses interrogative structures, based on the results and conclusions derived from comparing the interrogative systems of 79 randomly selected languages. The paper begins by listing a number of generalizations about interrogative structures based on disparate observations in the field. These generalizations constitute the basis for undertaking the systematic research reported here. The paper is divided into the following sections: (1) Classification of Q(Question)-features, reflected in the organization of the rest of the paper; the classification is followed by a list of questions which the rest of the presentation attempts to answer; (2) Intonation (including other suprasegmentals)--among clause-level Q-features, intonation holds the first rank although it may be accompanied by some other Q-marker; (3) Inversion (and word order in general)--of one or more constituents of the sentence with respect to their normal declarative order, (4) Tags--another clausal type interrogative device, always clitic, usually enclitic to a sentence, (5) Interrogative Particles--the most widespread device after intonation, (6) Interrogative Words--such as WH words in English, and (7) Summary Statements--a recapitulation of the fundings on interrogative systems. The statements are valid for the language samples used in the study. Three appendices give summaries of findings and research methodology information. (Author/TL)

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SOME GENERAL CHARACTERISTICS OF INTERROGATIVE SYSTEMS

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INTRODUCTION

1.0 General. Although a respectable number of illuminating studies on the role of intonation in particular languages (e.g. Bolinger 1957 or Halliday 1967) and in languages in general (see Bolinger 1962, Gantzel 1966, Hermann 1942, Lieberman 1967) have appeared in print, relatively little has been published on the subject of interrogative structures, which encompass not only intonational but also other devices employed to express interrogation: particles, question words, tags, word order, etc. A special exception to this lacuna in the literature is Bolinger's (1957) detailed analysis of English interrogative structures. The purpose of the present paper is to begin to fill this gap by presenting the results and conclusions derived from comparing the interrogative systems of 79 languages selected as randomly as possible in terms of geographical, genetic, and typological distribution, given the available descriptive data.[1]

Starting with certain observations we have made concerning the expression of interrogative concepts, we note for example that many languages make use of a terminal rising contour to designate a yes-no question, sometimes with, sometimes without other interrogative markers such as inversion of subject or object, interrogative particles, etc. Furthermore, all languages seem to have non-intonational devices for indicating questions. Certainly, at the very least, all languages mark information questions with interrogative words such as who, what, where, etc. Many label questions--especially yes-no questions--with special interrogative particles or affixes. Compare for example FINNISH ko (enclitic) in Tuliko hän kotiin? 'Did he come home?' with Hän tuli kotiin 'He came home' or KONKOW -de in ?àmammájdy čédejem 'Did you (pl.) see that man?' with ?àmammájdyhajemo čén 'You (pl.) saw that man.'' The fact that interrogative particles usually occur either at the beginning of the clause (or enclitic to the initial constituent) or at the very end leads us to suppose some relationship between the particle position and the dominant type of constituent order for a given language. Similarly, interrogative words seem to occur most commonly in sentence-initial position, which may account for inversion in some types of information questions and which is undoubtedly related to the general increase in emphasis ordinarily associated with initial position in most or even all languages. Probably most languages append tag questions to declarative statements to request confirmation, as FRENCH n'est-ce pas? or RUSSIAN pravda? (or n'e pravda?). Is this negative expression of these tags characteristic of such questions? Many modern European languages make use of standard inversion patterns to signal yes-no questions, and still other patterns for some kinds of information questions. Compare not only ENGLISH Did he come home? or FRENCH Est-il rentré chez lui? but also FINNISH Tuliko hän kotiin? or Mitä hän teki? 'What did he do?' (vs. Hän teki sitä 'He did that'). How widespread is this use of inversion among languages in general? These and other observations have led us to the more formal examination of interrogative systems which has resulted in the exposition which follows.

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[1]All subsequent statistics and percentages are of course based on the size and internal distribution of the sample, a fact which should be retained when these are used in general statements in the body of this paper.

In his study (1957) Bolinger begins by dividing the identifying characteristics of interrogative utterances into four classes: interrogative distribution (generally occurrence before a reply); syntax (inversion, interrogative words, interrogative tags, and other syntactic devices); interrogative intonation (predominance of terminal rising or high pitch); interrogative gesture (eyebrows lifted, head inclined forward, mouth left open at end of utterance, etc.). Of these, we will consider primarily intonation and syntax, distribution to a lesser extent, and gesture not at all. The latter might best be treated under the heading of kinesic phenomena, but the principal reason for excluding it is simply that little (in most cases, no) descriptive material on the subject exists. Similarly for distribution, its comparative neglect in most descriptions precludes the possibility of comprehensive generalization.

While other factors such as emphasis or nuances added to the general interrogative theme (e.g. degree of familiarity between speaker and hearer, degree of doubt, rhetoricity of the question) characteristically produce variations in the form of interrogative sentences (particularly in intonation), for the most part only the major, more or less neutral types will be discussed here. The assumption is that if these can be accounted for in terms of a few simple variables, the remaining types may be accounted for by additions to or deletions from the predicated norms of other features or feature complexes. Also omitted from consideration are echo questions, repeated questions, rhetorical questions, and a few other types, not because they are not pertinent to the subject under investigation but again because insufficient data are available for general comparison.

1.1 Classification of Q-features. There are a number of possible ways to classify interrogative features. One of these, Bolinger's, has already been briefly alluded to. In order to facilitate the organization of the material and the subsequent discussion, we propose the following classification:

1. Intonation - including sentence and tag intonation as well as particle and interrogative word accent.[2] Take as examples interrogative (Q) sentence intonation in TUNICA lóta wiwánăn 'Do you want to run?' (´ = stress, ˘ = rising pitch--indicative statements end in high register ultimas, quotatives in low ultimas); tag intonation in KHASI wa phii la da san katnikatni, ʔĕem 'Oh, you have grown up so much, haven't you?' (vs. falling pitch on ultima for neutral declarative statement); interrogative particle (QP) accent in JAPANESE wakarimasita ka↗ 'Did you understand?" (⌜ ⌝ = raised pitch, ↗ = slight rise in pitch without lengthening syllable vs. Q-intonation in yes-no questions without QPs which comprises rising and lengthened ultima, and falling for normal declaratives);

[2]These terms are used with their more or less conventionally accepted referents: intonation includes meaningfully contrastive sentence or clause terminal contours (comprising feature complexes of pitch, stress, duration, etc.; word accent includes features of pitch and/or stress (and/or duration) used to contrast question words (QW) or particles (QP) with corresponding nonquestion words.

and interrogative word (QW) accent in SYRIAN ARABIC wénak hal-ʔiyyām mā hada bišūfak? 'Where have you been these days, that no one sees you?' (´ = main sentence stress and highest pitch, wénak 'where').[3]

2. Order - including main constituent inversion, positional relationships of affix to stem and of tag, QP, or QW to clause or clause constituent, e.g. inversion in MALAY datangkah bapak nanti? 'Is father coming later?' (lit. comes father later?' vs. normal declarative SVO order); Q-suffix in ASMAT tetámčenanóm 'shall we give him?' (tetám 'give', -an Q-suffix); sentence-final tag in TAGALOG hindi mabait ang babae, ano? 'The girl isn't nice, is she?'; clause-final QP in MANDARIN nii bu pah laohuu ma? 'Aren't you afraid of tigers?' (ma QP); and sentence-initial QW in GAELIC ciod è rinn thu an diugh? 'What did you do today?'

3. Segmental elements - including interrogative particles (and affixes), words, and tags, all of which are shown above.

Cross-cutting this classification are two others which are relevant to the discussion. The first of these concerns the type of expected response: yes-no (YN) or any questions requiring a yes or no reply, as in Do you live here?; information (IN) or a question containing a QW and requiring a more specifically informative reply than a simple yes or no, as in What did he say?; alternative (AL), or a question that poses, either explicitly or implicitly, two alternative answers as in MANDARIN nii miengl chu.chiun bu chu.chiuh a? (lit. 'Are you going out not going out tomorrow?'--both clauses simply juxtaposed), or SANGO tongana mɔ tɛ ngunzá, mɔ tɛ susu mélangé na ní wala? 'When you eat greens, do you eat fish mixed with them , or not ?' (with sentence-final conjunction), or JAPANESE onazi desu ka, tigaimasu ka. 'Is it the same or is it different?' (both clauses marked by QP).

The second classification deals with a formal division of all Q-features into those pertaining to clause or sentence as opposed to those pertaining to word, in essencesence a morphology-syntax dichotomy. Thus, sentence and tag intonation, tag, QP, and QW order, restrictions of co-occurrence (e.g. QP and QW in the same clause) are clause features; others are word features. Semantically, this division generally reflects a corresponding focus of interrogation on the entire proposition (clause) as against a particular referent (word).

In addition to the above-outlined organization of data, we expect to find some correlations between Greenberg's basic order types (1963) and certain Q-features, particularly those relevant to constituent order. We therefore briefly summarize these for the reader's convenience in following the presentation, along with their proportionate representation in our sample. Languages unidentified as to order type are not included in the percentage figures.

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[3] Other interesting interrogative devices based on phonological oppositions noted by Greenberg (1969, pp. 32-34) in several languages are use of terminal glottalization and/or voicing to mark questions vis-à-vis voicelessness in the corresponding statements, or long final vowels versus short ones.

1. Preferred order of simple declarative transitive sentences with nominal subject and object:

	Percentage of Sample
VOS : verb - object - subject	2.7
VSO : verb - subject - object (I)	18.7
SVO : subject - verb - object (II)	34.6
SOV : subject - object - verb (III)	44.0
(4 languages unidentified)	

2. Prepositions predominant (pr)	46.7
Postpositions predominant (po)	53.3
(4 languages unidentified)	

3. Relative order of nominal possessor (G) and possessed (N):

GN	56.4
NG	43.6
(1 language unidentified)	

4. Relative order of attributive adjectives (A) and head nouns (N):

NA	53.8
AN	46.2
(2 languages unidentified)	

1.2 Some Questions to Be Answered. Returning to our earlier observations on the characteristics of interrogative systems, we are now in a position to formulate a number of specific questions which we will endeavor to answer within the framework described above.

1. Is a terminal rising contour or high pitch always associated with questions vis-à-vis some other contour (usually falling) marking simple declarative statements? Do YN, IN, and tag questions differ in this respect? If so, how?

2. Do QWs, QPs, and Q-affixes tend to occur in conjunction with high or rising pitch or prominent stress?

3. Do languages which normally have terminal falling contour on YNQs have obligatory terminal rising contour on such questions when interrogation is not marked in any other way?

4. Are there any significant distributional restrictions on co-occurrence of Q-intonation and QW-accent in INQs?

5. What is the relationship between Q-intonation and YNQs or INQs?

6. Is there any correlation between inversion as an interrogative device and some basic order type(s)? In YNQs? In INQs?

7. Is there any correlation between the clause position of QWs and basic order types?

8. Is there any correlation between position of QPs with respect to clause constituents or of Q-affixes with respect to stems and the basic order types?

9. Are there any restrictions of co-occurrence between Q-markers (QPs and Q-affixes) and QWs?

10. Are there any restrictions of co-occurrence between Q-markers and inversion?

11. What is the relationship between Q-markers and negative particles or affixes?

12. What is the truth value inference[4] of the anticipated reply to negatively or positively stated questions?

13. What is the relationship between indefinite substitutes (such as English someone, somewhere, whatever, etc.) and QWs?

14. What is the relationship between relative or subordinating conjunctions and QWs?

15. Do interrogative pronouns always exhibit a human/nonhuman or animate/inanimate dichotomy?

INTONATION

2.0 Among clause-level Q-features, intonation holds the first rank. Throughout the history of structural linguistics it has been debated whether intonational phenomena should be regarded as extralinguistic, marginal (e.g. DeGroot 1945, Martinet 1960, Rigault 1962), or on a par with other linguistic structural domains such as phonology or syntax (e.g. Pike 1945, Gleason 1955, Faure 1962). A principal argument for including it in the proper domain of linguistics is based upon the widespread contrast between a terminal falling and a terminal rising contour representing a meaningful distinction between an attitude of finality or conclusiveness and one of suspension, incompleteness, doubt, questioning, or the like on the part of the speaker. It can also be argued that if this is a universal dichotomy it is essentially a human trait and, as such, has no place in a strictly linguistic description. Nevertheless, it seems to us that, even if it is universal, it does consist of a formal-semantic covariance which constitutes a linguistic structure just as much as does an opposition like boy - boys in English.

[4] I am indebted to Joseph Greenberg for suggesting this apt expression.

Furthermore, although Q-intonation is often accompanied by some other Q-marker (e.g. inversion, QP, etc.), most languages (perhaps all?) also have Q-utterances distinguished from their corresponding declarative utterances solely by means of Q-intonation.[5] Compare for example RUSSIAN vi čitáet'e kn'ígu (statement) 'You are reading a book' and čitáet'el'i vi kn'ígu (question by subject inversion and QP), both with falling intonation, as opposed to vi čitáet'e kn'ígu? (question) with rising intonation.

2.1 Up to now we have spoken of Q-intonation and terminal rising contour as though they were synonymous. This is not quite so. While the rising contour is certainly the most frequently occurring type of Q-intonation, there are others. In the present sample we found some 15 additional contours among 24 of the languages sampled, which can be further reduced to eight more general types, as follows:

Type	Example
1. slight terminal rise	Diola
slight terminal rise with length	Iraqi Arabic
2. terminal acceleration	Mandarin
3. higher pitch toward end of contour:	
higher ultima	Vietnamese
higher penult	Chontal
higher pitch on last stressed vowel	Bashkir
rising toward last stressed vowel	Hebrew
4. higher sentence register	Sango
higher sentence register with final drawl	Mandarin
5. higher ultima followed by falling	Aramaic
extra-high ultima falling to mid	Hausa
6. higher pitch toward beginning of contour:	
higher initial syllable	Western Desert
higher stressed vowels	Finnish
7. higher stressed vowels at any point within contour	Guaraní
8. terminal fall	Chitimacha, Fanti, Grebo

It will be noted that terminal rise for YNQs and the first seven types, with the possible exception of type 2,[6] all share one feature: higher pitch (register or glide) or more prominent stress at some point in the contour, usually towards

[5] The general prevalence of rising or higher-pitched contours to mark YNQs would appear to be directly related to early infant acquisition of this Q-feature as noted by Lewis (1936), Leopold (1953), and others in Bellugi and Brown (1964).

[6] Mandarin, the only language so described, also has a standard terminal rising Q-intonation.

the end, as opposed to falling or low-pitched ultima in simple declarative statements. This leaves us with type 8, for which all examples have been given. This YNQ-intonation is clearly incompatible with all others, especially in CHITIMACHA,[7] where falling Q-intonation contrasts with rising declarative intonation. As for FANTI, I have no doubt that falling Q-intonation is the norm, but I wonder if a higher sentence register type does not also exist, as has been described for closely related TWI. While rising Q-intonation is not shown for YNQs in GREBO, there is a tag with that intonation. Of the three type-8 languages, FANTI and GREBO are tonal, i.e. make use of morphological tone, belong to the same basic order typology (SVO/po/GN/NA), and are genetically related (Kwa group, Niger-Congo); CHITIMACHA apparently does not make use of morphological tone, but has a basic order typology similar to the other two (SOV/po/GN/NA). Furthermore, several non-type-8 languages, such as DIOLA, MANDARIN, and VIETNAMESE, are also tonal languages. Thus, it seems that tonal structure in itself is insufficient to account for the deviant interrogative contour of type 8.

Of the 53 languages for which we have any information on YNQ-intonation, 71.7% have rising, 34% have higher pitch of one sort or another, and 5.7% have falling contour only. Another 5.7% have both rising and falling types. All languages with falling Q-intonation are postpositional; languages with rising contour or higher pitch are evenly distributed typologically and otherwise.

2.2 Q-intonation on tags, which we have noted are principally YNQs, confirms our findings. Only four languages out of 29 on which information is available do not have rising or higher pitched Q-intonation as a favored tag type.

2.3 INQ-intonation is almost equally divided between rising or higher pitched on the one hand and falling finals on the other: 47.9% for the former and 52.1% for the latter, based on information from 36 languages (62% of those with rising or higher intonation also have falling INQ-types). While INQs are associated with a much higher incidence of rising finals than corresponding declarative statements, nothing in the typological or other distributions of languages with rising finals versus those with falling finals leads us to assume any constant relationship between certain order types and one or the other of the prevalent Q-intonations.

2.4 Of the 17 languages for which QWs with some distinctive Q-accent were described, nine permitted co-occurrence with Q-intonation, seven did not, and information was lacking for one. Thus no general restriction exists on co-occurrence of Q-accent and Q-intonation in the same sentence, nor of QP-accent and Q-intonation, although here the information is even more sketchy, only seven languages with QP-accent being represented.[8]

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[7] I am grateful to Dorothea Kaschube for bringing the Chitimacha situation to my attention.

[8] GREBO and SANGO might be added, but it is not clear whether we are dealing with particles or tags.

INVERSION

3.0 An interrogative device which is somewhat less widespread than intonation is the inversion of one or more constituents of the sentence with respect to their normal declarative order. Basically, inversion is of two kinds, generally manifesting formally different patterns and usually representing different degrees of interrogative redundancy. These correspond to the YN-IN dichotomy.

3.1 On the basis of the present sample, YNQ-inversion appears to be a rather uncommon interrogative device, occurring in only seven languages (six of which are modern European) out of 38. An eighth, SYRIAN ARABIC (primarily a VSO language with an alternative SVO order),[9] has an emphatic inversion of the resultant type VOS, but this is not restricted to interrogative sentences nor does it seem to impart an element of interrogation to Q-sentences. One often speaks of subject or object inversion with reference to YNQs. In view of our findings, a better term might be verb inversion, since in the languages employing this device the simplest possible statement for reordering the constituents (considering only S, V, and O) is always: Remove the verb and place it at the beginning of the sentence.[10] These languages include SVO, SOV, prepositional, and postpositional types; thus the inverted order will always be VSO. However, it should be noted that the sample contains only one such SOV language, HUNGARIAN.[11] In languages having periphrastic verbs, the finite auxiliary always occupies the V slot in inverted YNQs, the main verb always following (although not necessarily directly) the subject. Five of the seven languages with YN-inversion also make use of QPs in YNQs. Of these, only FRENCH est-ce que is mutually exclusive with verb inversion in YNQs; FINNISH, HUNGARIAN, MALAY, and RUSSIAN have no such restriction.

3.2 INQ-inversion undoubtedly stems directly from the predilection among many languages for placing QWs at the beginning of the sentence, regardless of basic order type. SOV languages, however, are less prone to this tendency than other types (56.5% of 21 SOV languages vs. 74% of 46 non-SOV languages). The resultant inversion is particularly striking for virtually all languages when the QW is the object of the verb, since object in sentence-initial

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[9] Charles Ferguson views modern spoken SYRIAN ARABIC as primarily a SVO language (p.c.), but we have classified it as VSO on the basis of Cowan's statements on constituent order.

[10] This statement applies when S and O are nominals; when one or both are pronominal it may or may not be valid--compare, for example, FRENCH L'a-t-il vu? where the order with pronominal O is OVS.

[11] There is some question whether HUNGARIAN favors the SVO type over SOV. As with SYRIAN ARABIC, we have accepted the information given in the source on these matters. However, Sauvageot's description appears to be based at least in part on literary rather than colloquial language, which may account for the difference in prevalent order types.

position is not a favored declarative type for most languages (see Greenberg 1963, especially pp. 76-77). Beyond the preference for having QWs in initial position, there is no particular correlation between the relative ordering of the remaining non-initial sentence constituents, e.g. OSV or OVS, and the basic order types. In fact, for a number of these languages alternative orders are acceptable.

3.3 This general tendency for most languages to favor sentence-initial QWs is essentially the same phenomenon as the earlier one on initial position of the verb in YNQ-inversions. In YNQs the whole sentence is normally subject to questioning. In most languages--probably in all--the finite verb is the core of the simple sentence. Indeed, it, and usually it alone, may constitute a minimal major sentence. In INQs the QW substitutes for the item subjected to questioning. The focal point in both YNQ and INQ is what is being questioned. It is, therefore, no coincidence that the questioned items occupy or tend to occupy the generally emphatic initial position in the sentence. For noninterrogative examples of this emphatic position, compare Him, I saw! or Wilfully, he shot the policeman. One particularly striking example of this kind of emphatic shift appears in ENGLISH INQs like Who from? or What with? where what is generally viewed as a strictly prepositional language exhibits postpositions.

TAGS

4.0 Another common interrogative device which comes under the heading of clausal types is the tag question. Tags in a given language may be at least operationally defined as characterized by some or all of the following features. They are always clitic, usually enclitic, to a sentence, most often declarative. In this respect they differ from other, longer Q-utterances which always may and generally do occur independently (i.e. as sentences, of course not independent of the discourse). In a way tags may be likened to independent clauses in complex sentences. Thus a tag-question like John is married, isn't he? could just as well be paraphrased Is it not so that John is married? Some tags consist of single words like You saw him, eh?, others are phrases, e.g. GERMAN nicht wahr?, or clauses as in the previous ENGLISH example. The great majority of tags, whether words, phrases, or clauses, are accompanied by intonation patterns characteristic of YNQs. But the addition of a tag to a declarative sentence converts the entire construction into a question, thus functioning much as a QP does.

4.1 The tags we have investigated may be classified in several ways. The kind of reply expected may be a binary or multiple choice. The binary type falls into two classes: 1) a request for confirmation of the statement portion of the question, in essence a YNQ; 2) an alternative tag, in which a correlative conjunction or other similarly functioning constituent is tacked onto the statement, as in FANTI iríkɔ̀ anée 'Are you going, or [what]?' (anée 'or').

Class 1 tags, which almost always anticipate yes answers, or are meant to be taken as rhetorical, may be further subdivided into a number of semantic subclasses:

1. Negative constructions like the FRENCH prototype n'est-ce pas? or KHASI wa phii la da san katnikatni, ʔeem? 'Oh, you have grown up so much, haven't you?' (ʔeem negative), in which the tag consists of or includes a formal negative marker.

2. Positive constructions, usually based on a copula or existential predicate like ROTUMAN fā ta pot pau, ne? 'The man is very clever, isn't he?' (ne predicative particle), or THAI khun ca pay hua hin, chây măy? 'Are you going to Hua Hin?' (chây măy 'is it...?').

3. Interjections like ENGLISH eh? or Hausa za kà tàfi, ko? 'Will you leave, huh?' (ko in non-Qs is a clause introducer 'even if, although').

4. Miscellaneous types such as RUSSIAN ti yevó slušil, právda? 'You heard him, didn't you?' (although actually this appears to be analogous to type 2 above, especially in view of the normal zero copula here), or Tagalog hindi maganda ang damig, ano? 'The dress isn't pretty, is it?' (ano 'what') similar to Oxonian Silly fellow, what?, and one or two others not readily classifiable with the three principal types noted.

The binary choice tags are almost always sentence-final. The sole exception we have found is HEBREW (ISRAELI) halo?, a type 1 tag which occurs initially. However, HEBREW also has another type 1 tag which occurs in final position. A very few languages allow alternative tag positions, e.g. KANNADA tānē, normally final, may follow other nonfinal constituents on which interrogative attention focuses in nominal predications, or FRENCH n'est-ce pas in N'est-ce pas qu'il est venu hier? and Le chef--n'est-ce pas--est arrivé hier.

While information on co-occurrence patterns of positively or negatively stated declaratives and subsequent tags, and also on the anticipated responses to such questions, is not abundant, it will be interesting to examine those cases for which we do have data. Logically, any of the three variables in a given situation --declarative, tag, and response--may be stated either positively or negatively, resulting in eight possible types:

Tag	Positive		Negative	
Declarative	Positive	Negative	Positive	Negative
Response P	1	2	3	4
Response N	5	6	7	8

Actually, we have data on types 1, 3, 4, 6, 7, and 8. Of these, 3 is by far the most common, followed by 1. Types 4 and 7 are questionably represented by one language each. Restated in tabular form:

Type	Declarative	Tag	Response	Number of Languages
3	P	N	P	10 + 5 (?)
1	P	P	P	5 + 1 (?)
6	N	P	N	2 + 1 (?)
8	N	N	N	1
4	N	N	P	1 (?)
7	P	N	N	1 (?)

As to the truth value inference of the response vis-à-vis the question, these seem to fall into two general types:

1) The response reaffirms (or echoes) the truth value of the declarative portion directly, regardless of the value of the tag (types 1, 3, 6, and 8).

2) The response reaffirms the truth value of the declarative portion by appropriately answering the tag (types 4 and 7).

4.2 Multiple choice tags are, at least in the present sample, entirely limited to the how about...? type, which differs in two important respects from binary choice tags: it is usually clause-initial and requires a reply which is generally not restricted to two alternatives but calls for additional information, or a yes or no followed by a complementary statement. This kind of tag often comprises a special introductory word followed by a main clause constituent which has been singled out for attention and removed from its normal context, a procedure which points to a kind of emphatic displacement to clause- or sentence-initial position, similar in effect to the near-universal preference for sentence-initial QWs in INQs (see Sec. 3.2 and 3.3). Examples of this type are FINNISH entäs... (see above for example), AGTA á in á ya arikavwat-en O ey? 'Say, friend, what about the purse there?', or TURKISH ya in Bu kadar yetişir, diyorsun, ya yetişmezse? 'This much will be enough, you say; and what if it isn't enough!' The TURKISH tag is particularly interesting because it also functions as a sentence-final tag of the confirmation-requesting n'est-ce pas? type: Kösede bir fırın vár ya? 'There's a bakery on the corner, right?'

INTERROGATIVE PARTICLES

5.0 After intonation, interrogative particles are the most widespread device for marking YN clauses or sentences, and INQs to a somewhat lesser extent. Both structurally and semantically they differ from QWs, which are most often in constituency with words or phrases and focus interrogatively on more particular referents. Particles are always in constituency with the entire clause, and focus interrogation on the proposition as a whole, like Q-intonation. Sentence-final QP wéndé in GBEYA ge?déa a wa ?dú go wa bá hɛ́ ɛ́ wéndé? 'Is it the dregs that they dish up and give to me?' questions the entire utterance, while QW o in o á tɔ́ à há mɛ́ o ndé? 'Who told you?' questions subject referent only.

In connection with this, it is worth noting that Q-affixes (not of the information type as, for example, IRAQI ARABIC š- 'what' in šitriid? 'What do you want?') are almost invariably appended to verb stems or predicate words as a manifestation of their relevance to the core of the clause or sentence. Use of the term particle here is, strictly speaking, inaccurate; a few languages have Q-affixes which perform the same function as QPs in other languages. In some descriptions it appears likely that classification of such elements as affixes rather than particles is inexact. Compare, for example, PIRO where the "Q-suffix" -he occurs in word-final position and may be added to any major word class: verb, noun, adjective, adverb. On the other hand, in a language like KONKOW the Q-element de can be analyzed only as a modal suffix added to the verb before the inflectional endings for number and person. On the whole, however, Q-affixes are relatively rare. We therefore use the term particle here to refer to an uninflected word, clitic or free, or an affix which fulfills a function similar to that of the true particles discussed in this paper.

5.1 QPs sometimes occur with special pitch or stress features analogous to Q-intonation. The LITHUANIAN QP ar carries rising pitch on the vocalic r; the TURKISH enclitic mi, except after the present tense, is preceded by a stressed syllable regardless of where word stress would normally appear; JAPANESE ka occurs with rising pitch in YNQs (vs. falling or level in rhetorical questions); MANDARIN ma as it were induces a generally higher level of sentence intonation ending in a "slight drawl". Of the 22 languages for which we have definite information, 9 have such features and 13 do not. Distribution of these languages is quite random. Although the evidence is not conclusive due to the small size of the sample, there is clearly a better than chance probability that QPs will be accompanied by some kind of Q-accent.

5.2 While QPs may occur after almost any sentence constituent in some languages (e.g. TURKISH), in most languages the position is or tends to be fixed. QPs often follow or are enclitic to clause constituents (in 42 languages plus 9 with suffixes out of a total 66). Some of these normally follow the first constituent of a clause. In quite a few cases the QP is sentence-initial and in a relatively large number it is clause- or sentence-final. If we group those which are enclitic to the clause-initial constituent with the clause-initial ones, a justifiable procedure in terms of the distributional restriction applying to enclitics, we end with an almost equal distribution of languages with initial vs. final QPs, and a relatively small residue of nine languages with QPs which occur neither initially nor finally (but note that five of the nine also have QPs in initial or final position). As Greenberg (1963) has already noted,[12] there is a direct relationship between

[12] Our statement differs slightly from Greenberg's. He summarizes the situation as follows: "With well more than chance frequency, when question particles or affixes are specified in position by reference to the sentence as a whole, if initial, such elements are found in prepositional languages and, if final, in postpositional." This is generally in accord with our findings, except that of the languages sampled for this feature with QP initial or enclitic to the sentence-initial constituent, 24% are postpositional.

the position the QP occupies in the clause and the basic order type of the language: when the QP is clause-initial (or enclitic to the initial constituent), the verb almost always precedes the object in a normal declarative statement; when the QP is final, the verb may precede or follow the object--final QP tends to be much more common in postpositional languages (of 36 such languages, QPs are sentence-final in 61.1%, sentence-initial in 16.7%, and have other positions or are lacking in the remainder).

5.3 Logically, one would expect to find QPs only in YNQs, since INQs by definition already contain at least one clearly marked interrogative device (one or more QWs). As a comment on redundancy in language, it is worth noting that the odds are practically even for this kind of situation: of 42 languages, QPs occur with INQs or YNQs in 25 languages and only with YNQs in 23 (6 languages have both types). Furthermore, the genetic, geographic, and typological distributions of both types are quite random.

5.4 In our discussion of tags, we noted that the negative binary choice predominates. GAELIC, IRISH, BASHKIR, PIRO, and possibly ROTUMAN have QPs which are at least formally identical with negatives. Such "particles" have also been described for BENGALI, FULA, and VIETNAMESE, but their distributions and functions in these languages seem to point more toward a classification as tags. In all cases we lack information on the anticipated response to such questions.

INTERROGATIVE WORDS

6.0 Interrogative words are characteristic of all languages. That is, all languages have interrogative substitutes for nouns, and a number of adverb-like words or phrases expressive of locative, temporal, enumerative, manner, purpose, and other functions. A few languages have interrogative verb substitutes like WESTERN DESERT ya·ltji- in wati ya·ltjinu? 'The man did what?' or MANDARIN gannma in nii gannma lao ku? 'What are you crying for?'; a few have interrogative interjections such as TONGAN inē 'what about it?'; and a very few have QW-affixes like the prefix š- in IRAQI ARABIC šdataakul? 'What are you eating?' or the ROTUMAN suffix -s with nouns as in hanues 'which country?'

6.1 The number and kind of distinctions which QWs may or may not reflect in terms of those existing elsewhere in a given language vary considerably from language to language, but at least one contrast appears to be nearly universal: Q-pronouns show a human/nonhuman or, in a few cases, an animate/inanimate dichotomy. The only exceptions we have noted are KHASI, SANGO, and LITHUANIAN. In KHASI, either of two allomorphs of the interrogative base may represent 'who?' or 'what?', but there is some tendency to prefer one, -ey, for the human substitute. In SANGO, 'who?' is normally rendered by zo wa 'what person?' but is occasionally represented by the pronoun yε 'what?'. Senn's (1966) description of QWs in LITHUANIAN appears to be thorough, but apparently no alternative grammatical device distinguishes a personal from an impersonal Q-pronoun--only the semantics of the context.

6.2 Although data on QW-accent are scarce, 20 languages have fortis stress or sentence stress, high pitch, rising contour, or a combination of stress and high pitch on the QW. These languages are evenly distributed.

6.3 As mentioned earlier (see Sec. 3.3), languages of all types tend to locate the QW in sentence-initial position, although this is less common among languages with a basic order of SOV; such was the case in 73.4% of 53 languages. Sentence-final position as a QW-norm is characteristic of only one language, KHASI. However, in 25% of the languages QWs apparently retain the normal position of the constituents for which they substitute or, in a very few cases, occupy other specialized positions in the sentence (e.g. preceding the verb phrase only in GUJARATI).

6.4 Somewhat peripheral to the question of QWs but clearly related is the connection between indefinite pronouns, adjectives, adverbs, etc. and relatives or subordinating conjunctions on the one hand, and QWs on the other. Indefinite words are at least in part either formally identical with or related to QWs. Thus ENGLISH somewhat, whatever are derived from what (but something, someone are not based on what, who). The only possible exceptions to this statement in the present sample appear to be SAMOAN and ROTUMAN, both Polynesian languages with highly structured definite-indefinite systems quite distinct from the corresponding QWs.

The generally sketchy information we have on relatives (in many instances none at all) tends to support the view that they share a relationship with QWs similar to that of the indefinites in most languages.

SUMMARY STATEMENTS

Listed below are a number of statements that recapitulate briefly our findings on interrogative systems. Note that they are valid for the 79-language sample used in this study.

Intonation

1. YNQ intonation types consisting of rising terminal, higher pitched, or special stress contours are found in nearly all languages: always in prepositional, almost always in postpositional languages. Therefore, nonoccurrence of a rising terminal, higher pitched, or special stress YNQ-contour implies a postpositional language.

2. The presence of tag questions with nonrising (or higher pitched or stressed) contours implies also tag questions with rising etc. contours.

3. There is a considerably better than chance probability (a little less than 75% in the present sample) that an INQ-intonation type consisting of rising terminal, higher pitched, or special stress contour may occur in languages of all basic order types, although this is somewhat less likely for postpositional languages.

Word Accent

It should be noted that the following statements concerning word accent on Q-elements are much more tentative than any of the other summary statements, since the evidence on which they are based is quite limited.

1. There is a slight tendency for QPs to occur with higher pitch or prominent stress in SOV languages.

2. QWs tend to occur with higher pitch or prominent stress in languages of all basic order types. This tendency is somewhat more marked in SOV languages.

3. There are no typological restrictions on the co-occurrence of QWs with Q-accent (higher pitch, etc.) and Q-intonation (rising terminal contour, etc.) in the same INQ, nor on the co-occurrence of QPs with Q-accent and Q-intonation in the same question.

Order

1. The presence of YNQ-inversion implies a basic order type in which subject precedes verb.

2. YNQ-inversion implies a resultant VSO order. In periphrastic constructions, the finite auxiliary always occupies the V slot of the inverted constituent order and precedes the main or non-finite verb.

3. If a language has INQ-inversion, QWs are almost always sentence-initial.[13]

4. While languages of all basic order types may have INQ-inversion, SOV languages are less likely than others to have it; they tend more to retain the basic constituent order of simple declarative sentences in INQs.

5. QWs tend to occur in sentence-initial position in languages of all types; the ratio in favor of this is approximately three to one. However, the ratio in SOV languages is only about one to one.[14]

6. Further, with regard to statements 2 and 5: the emphatic nature of sentence-initial position is the key to both types of inversion. In YNQ-inversion the verb carrying the burden of emphasis is initial; in INQ-inversion the QW subject to emphasis is initial.

7. Most QPs occur in sentence-initial (or enclitic to the initial constituent) or in sentence-final position. QPs almost always occur finally in SOV languages and show a greater tendency to occur initially in other types.

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[13] This confirms Greenberg's statement (1963, p. 83).

[14] This is in general agreement with Greenberg (1963, p. 83), but we have found exceptions to the absolutely stated first part of his Universal #12: "If a language has dominant order VSO in declarative sentences, it always [emphasis mine] puts interrogative words or phrases first in interrogative word questions;" -- notably in SAMOAN and in SANGO.

8. Q-affixes in YNQs are relatively rare. Q-suffixes are found principally in SOV languages.

9. There appears to be no general restriction on the co-occurrence of QPs and YNQ-inversions. The sole exception to this in the present sample is FRENCH in which the two devices are mutually exclusive in YNQs.

10. Binary choice tags are almost always sentence-final, multiple choice tags sentence initial.

Segmental Elements

1. QWs and QPs may or may not co-occur in INQs with about equal frequency in languages of all types.

2. In nearly all languages, some indefinite substitutes are formally identical with or related to the corresponding QWs. This is very likely true of relative substitutes to a slightly lesser degree (insufficient data on this at present).

3. Q-pronouns in almost all languages show a formal contrast which reflects human/nonhuman or, more rarely, animate/inanimate opposition.

4. QPs occur in all types of languages with roughly equal frequency.[15]

5. A Q-affix appended to a predicate word implies a YNQ; one appended to a QW implies an INQ.

6. About 75% of languages of all types use tag questions which consist of or contain negative particles or affixes.

7. Most of the available information on negatively or positively stated Q-responses is on confirmation-requesting tag questions. Barring doubtful types 4 and 7 noted in Sec. 4.1 (see p. 51), we may tentatively state that the response to a confirmation-requesting tag question implies a like (in terms of negative or positive statement) declarative portion of the question, thus reaffirming the truth value of the former.

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[15] Note that Greenberg's statement (1963, p. 82) excluding occurrence of QPs in VSO languages is not supported by our investigation. VSO languages like AGTA, CHONTAL, DIOLA, SCOTTISH GAELIC and others do make use of QPs.

APPENDIX I

Individual Language Q-feature Synopsis

The chart which follows summarizes the basic Q-feature and order types for the languages sampled in this study. It does not condense all the data available to us, only what we deem to be most generally relevant. In some cases where information on a particular order type or Q-feature was not specifically described, it was possible, with varying degrees of certainty, to resolve the nature of the item on the basis of textual examples and/or by piecing together discrete bits of information included in other (non-Q) sections of the description. We have added ? in cases of considerable doubt. Additional symbols used here are:

acc	accent
aff	affix
f	1. falling (intonation) 2. sentence-final (position)
h	higher pitch or stress (see p. 46)
i	sentence-initial or enclitic to initial constituent
int	intonation
inv	inversion
o	other (position, accent, etc.) than the predominant type(s) for a given Q-feature
p	prefix
pos	position
r	rising terminal contour
s	suffix
+	yes
-	no
/	either...or...

Generally where two of these appear under the same rubric, e.g. TAG: pos: i/f, int: r/o, the corresponding sequence is observed for both features, i.e. the language has an initially occurring tag with rising intonation and a final tag with non-rising intonation.

LANGUAGE	ORDER TYPE				O- FEATURES											
					Int.		Inv.		Tab.		OP				OV	
					VN	IN	VN	IN	pos	int	pos	acc	aff		pos	acc
Agta	VSO	pr	NG	NA			-	+	i/f	r/o	i				i	
Albanian	SVO	pr	NG	NA	r	r/f			i	r	i				i	
Amharic	SOV	po	GN	AN	r	r/f	-	-	f	r					o?	
Arabic, Iraqi	VSO	pr	NG	NA				+							f/o	h
Arabic, Syrian	VSO	pr	NG	NA	r	h	-	+	f		f/o				i	h
Aramaic, Neo-	SOV	pr	NG	NA	r/h	h									i/o	
Aranda	SOV	po	NG	NA							i?/f					
Asmat	SOV	po	GN	NA			-	-			f		p/s		o	
Bashkir	SOV	po	GN	AN	h	h	-	-			f?				o	h
Basque	SOV	po	GN	NA	r?		-				f				i?	
Bengali	SOV	po	GN	AN	r/h	r/f			f	r	o	o				h
Buriat	SOV	po	GN	AN	h	h	-	-			f	o	s		o	h
Burmese	SOV	po	GN	AN							f/o				i?	
Chichewa	SVO	pr	NG	NA												
Chinese, Mandarin	SVO	pr	GN	AN	h	h	-		f		f	o			o	r
Chitimacha	SOV	po	GN	NA	f	f					f?	o				
Chontal	VSO	pr	NG	AN	h	f	-	+			i				i	
Diola	VSO	pr	GN	NA	r	r					f				o	
English	SVO	pr	GN	AN	r	r/f	+	+	f	r					i/f	o/h
Ewe	SVO	po	GN	NA							f	o				
Fanti	SVO	po	GN	NA	f	f			f/o	h/o	f	o			i	
Finnish	SVO	po	GN	AN	f/h	f/h	+	+	i/f	h	i	o			i	h/o
French	SVO	pr	NG	NA	r	r/f	+	-	i/f	h/r	i	o			i/f	o/r
French, Louisiana	SVO	pr	NG	NA	r	f	-	+			i	o			i	
Fula	SVO	pr	NG	NA	r	f		+	f	r					i	o
Gaelic, Scottish	VSO	pr	NG	NA	r/h	f	-	+			i				i	
Gbeya	SVO	pr	NG	AN	r	r					f	h			i	
Grebo	SVO	po	GN	NA	f		-	+	f	r	f/*i/o	r/o			i	
Guarani	SVO	po	GN	AN	h	h/o		+	f?		i				i	
Gujarati	SOV	po	GN	AN	r	f		-	f?	h					o	
Gunwinggu	SOV	pr	NG	NA			-	+			i				i	
Hausa	SVO	pr	NG	NA	h	h/f		+	f/i	h/o					i	o
Hebrew	VSO	pr	NG	NA	r		-	+	f/i		i				i	
Hidatsa	SOV	po	GN	NA?			-									
Huichol	SOV	po?	GN	AN?				+							i?	
Hungarian	SOV	po	GN	AN	h		+	+			f				i	
Irish	VSO	pr	NG	NA							i?				i	
Jamaican Creole	SVO	pr	GN	AN	r	f		+	f	r					i	
Japanese	SOV	po	GN	AN	r	f	-		f	r	f	r			o	h
Jaqaru			GN	AN	h	h	-				f/o		s		i	
Kannada	SOV	po	GN	AN	r	f/h			f	r	i					
Karok			GN								i					
Khasi	SVO	pr	NG	NA	r/h	r/h	-	+							f	h
Klamath			GN	AN	r/f						i				i	
Konkow	SOV	po	GN	AN	f/r	f/h	-	+				o	s		i	o/h
Kurku	SOV	po	GN	AN							f				i/o	
Lithuanian	SVO	pr	GN	AN			-	+			i	r			i	
Malagasy	VOS?	pr	NG	NA				+			i/o				i	
Malay	SVO	pr	NG	NA	r		+	+	f/i	r	o				i	
Mongolian, Khalkha	SOV	po	GN	AN			-	-			f				o	

LANGUAGE	ORDER TYPE				Q-FEATURES										
					Int		Inv		Tag		QP			QW	
					YN	IN	YN	IN	pos	int	pos	acc	aff	pos	acc
Nyangumata	SVO?			AN	r				f	h				i?	h
Ojibwa	SVO	po	GN	AN			-				i		s	i	
Ossetic	SOV	po	GN	AN				+						i	
Panjabi	SOV	po	GN	AN	r				f	r					
Persian	SOV	pr	NG	NA										i?	
Piro	SOV	po	GN	AN	r	r/f					i		s	i	
Quechua	SOV	po	GN	AN			-	+?	ɔ	r			s	i	
Rotuman	SVO	pr	NG	NA			-?	-	f		i			o	
Rumanian	SVO	pr	NG	NA	r		+	+						i	h/o
Russian	SVO	pr	NG	AN	r	f	+	+	f	r	i	o		i	o
Samoan	VSO	pr	NG	NA	r?			-			i			o	
Sango	VSO	pr	NG	NA	r/h	f	-	-	f	r	f	r		o	
Squamish	VSO	pr	NG	AN				+			i			i	
Tagalog	VOS	pr	GN	AN	r	f	-?	+	f	r	i			i	
Tajik	SOV	pr	NG	NA					f	r?	f	o			
Telugu	SOV	po	GN	AN	r	r	-	-			f	r		o	r
Tetelcingo	SVO	pr	NG	NA	h			+						i	
Thai	SVO	pr	NG	NA	r		-		f	r	f	h/o		o	
Tongan	VSO	pr	NG	NA			-?	+	f					i/o	
Tunica	SOV	po	GN	NA	r						f				
Turkish	SOV	po	GN	AN	r	r/f			f/i		o	r			
Twi	SVO	po	GN	NA	h	f	-?	+	f?	h	f			i/f	
Uzbek	SOV	po	GN	AN	r	f			f?	h	f?	h			h
Vietnamese	SVO	pr	NG	NA	h			-	f	r/o	r			o	
Vogul	SOV	po	GN?	AN							f?				
Western Desert	SOV	po	GN	NA	r/h		-	-			o			o	h
Wolio	VSO	pr	NG	NA	-			+?	i					i	
Yakut	SOV	po	GN	AN							f				
Zapotec	VSO	pr	NG	NA	r/h			+	f	r/h	i	o	p/s	i	

*discontinuous QP, part initial, part final

APPENDIX II

Q-feature and Basic Order Type Summary

Following is a statistical summary of the information in Appendix I arranged by Q-features and their intersections with the basic order types. The figures in the matrix represent the number of languages in this sample which exhibit a particular feature, but the actual totals should be taken cum grano salis, since various kinds of sampling errors probably do exist (erroneous assignment to a basic order type, descriptive gaps in the sources, my own reinterpretation of certain features, e.g. tag for particle, and others). Nevertheless I feel that on the whole this summary gives a reasonably correct picture of some general relationships between Q-features and the basic order types. Doubtful examples are included in the totals without special notation, but these may be verified by cross-checking the corresponding Q-feature column in Appendix I.

The figures in parentheses after each feature represent the total number of languages for which data were available on the particular feature. Figures in TOTAL column A refer to the total number of languages which reflect that feature representation; those in column B, the number of languages in column A which show alternative representations.

Symbols used here to represent the basic order types are:

VOS	verb-object-subject	NG	possessed-possessor
VSO	verb-subject-object	GN	possessor-possessed
SVO	subject-verb-object	NA	head-attribute
SOV	subject-object-verb	AN	attribute-head
pr	prepositional	?	unidentified
po	postpositional		

BASIC ORDER TYPES

Q-FEATURES	?	VOS pr NG NA	VOS pr GN AN	VSO pr NG NA	VSO pr NG AN	VSO pr GN NA	SVO pr NG NA	SVO pr NG AN	SVO pr GN AN	SVO po GN NA	SVO po GN AN	SOV pr NG NA	SOV po NG NA	SOV po GN NA	SOV po GN AN	TOTAL A	TOTAL B
Intonation																	
YN (53)																	
rising	2		1	6		1	9	2	2			1		3	11	38	10
higher	1			3	1		4		1	1	2	1		1	4	19	4
falling	1									2	1			1	1	6	3
IN (36)																	
rising						1	3	1	1						5	11	8
higher	1			1			2		1		2	1			4	12	5
falling			1	2	1		5	1	2	2	1			1	9	25	11
Tag (29)																	
rising			1	3			7		2	1		1			6	22	4
higher	1			1			2			2	1				1	8	4
other				1			2			1						4	2
Accent																	
QP (22)																	
rising				1					1	1					3	6	1
higher							1	1							1	3	1
other				1			3	1	1	3	1	1		1	3	15	2
QW (20)																	
rising							1		1						1	3	1
higher				2			2		1		1			1	6	13	4
other							4	1	1		1				1	8	5
Order																	
Inversion																	
YN (38)																	
+							3	1	1		1				1	7	
-	1		1	6	1		4		2	2	1	1		4	8	31	
IN (46)																	
+		1	1	8	1		8	1	3	2	2	1			5	34	
-				2			2							2	6	12	
Position																	
Tag (37)																	
initial				3			4				1				1	9	7
final	1		1	6			8	1	3	3	2	1			8	34	8
other										1					1	2	1
QP (57)																	
initial	2	1	1	6	2		4	1	1	1	3	1	1		1	25	3
final	1			2		1	2	1	1	4			1	4	13	30	5
other	1	1		1			1			1				1	3	9	5
Q-affix (8)																	
prefix				1										1		2	2
suffix	1			1							1			1	5	9	2
QW (64)																	
initial	3	1	1	9	2		7	2	3	3	3	3		1	9	47	6
final							2		1	1						4	3
other				4		1	4		1			1		3	7	20	5

APPENDIX III

Field Worker's Guide

A natural by-product of any research project is the discovery of numerous gaps or omissions of relevant information in the descriptions which serve as raw material for the particular area under investigation. This negative (and often frustrating) side of the researcher's work can, however, be turned to the advantage of the field worker when presented as a check list or memo on the kinds of information which should be elicited from informants. We can scarcely claim that the suggestions offered here exhaust the subject of interrogative systems; however, it is hoped that their application will at least result in more systematic and complete descriptions for this important part of any language.

Phonological Devices

1. Terminal contours in YNQs, INQs, tags, and other questions as opposed to those found in declarative statements, e.g., rising or higher final, drawl, acceleration, etc.

2. QP, Q-affix, and QW accent as opposed to corresponding word accent in declarative statements

3. Non-intonational or non-accentual phonological contrasts used as interrogative markers, e.g. glottalized/nonglottalized, voiced/voiceless, long/short (particularly vowels), etc.

Word Order

1. Inversion (generally of verb and subject) in YNQs and INQs, with special attention to auxiliary position in periphrastic constructions

2. Other (nondeclarative) orders such as use of dependent clause order in YNQs in SCOTTISH GAELIC

3. Juxtaposition of alternative Q-clauses

Morphosyntactic Devices

1. QP or Q-affix

   a. In YNQs, INQs, tags

   b. As relative or conjunction introducing 'if' or 'whether' clauses (probably QP only)

2. Hypothetical modal (e.g. dubitative, subjunctive, optative) affixes or particles used as Q-markers

3. Tags

   a. Negatively expressed
   b. Positively expressed by a copula or existential verb

   } truth-value-inferential of expected response or rhetorical

   c. Alternative by conjunction or particle, or by parataxis of alternative clauses

   d. Additive or emphatic ('how about...?', 'and...?', etc.)

4. QW or QW-affix

   a. Formal classes: pronouns, adjectives, adverbs, proverbs, interjections, conjunctions, etc.

   b. Semantic classes: qualitative, quantitative, locative, temporal, manner, purpose, etc.

   c. Concord classes: gender, number, person, case

   d. Alternative or comparative Q-pronouns or adjectives ('which of two'?), particularly in languages which do not otherwise distinguish between dual and plural

   e. Derivational classes: indefinite and relative pronouns, adverbs, etc. and any correlations with other substitute paradigms such as demonstratives or personal pronouns

   f. Use of QWs in indirect questions

   g. Special dependency relations between QW and clause type, as in BASQUE, where QWs sometimes require non-finite verb forms.

Furthermore, all possible co-occurrence patterns and restrictions involving the various Q-devices should be carefully investigated.

BIBLIOGRAPHY

Bibliographical items of particular interest for interrogatives are referred to below. For a complete list of all items drawn upon in preparing the paper, see General Bibliography.

DUTCH	De Groot 1945
ENGLISH	Bolinger 1957, 1965
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FRENCH	Togeby 1965 (esp. pp. 18-22, 25-78)
GERMAN	De Groot 1945
JAPANESE	Yotsukura 1967
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GENERAL	Bellugi-Brown 1964 (esp. pp. 21, 27, 29, 34, 123)
	Bolinger 1962
	Faure 1962
	Gantzel 1966
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	Lewis 1936, 1938, 1959 (p. 34)
	Lieberman 1967 (esp. pp. 46-7, 101-7, 130-3)
	Martinet 1960 (pp. 25-7, 78-9)
	Rigault 1962